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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,756	11/15/2002	Eric Marche	4590-015	9189

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LOWE HAUPTMAN & BERNER, LLP
1700 DIAGONAL ROAD, SUITE 300
ALEXANDRIA, VA 22314

EXAMINER

TORRES, JOSE

ART UNIT	PAPER NUMBER
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2624

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/065,756	Applicant(s) MARCHE, ERIC	
	Examiner Jose M. Torres	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-10 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 4-7, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/15/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Comments

1. The Preliminary Amendments filed on June 18, 2003 have been entered and made of record.

The current application has been considered as being filed on November 15, 2002. However, acknowledgement is made for priority claiming under 35 U.S.C. § 119 (a)-(d) and 35 U.S.C. § 365(c) as recited in page 2 of the Declaration and Powers for Patent Application filed on June 18, 2003. Certified copies of Application No. PCT/FR02/00938 have not been filed as required by 35 U.S.C. § 365(c).

Specification

2. The abstract of the disclosure is objected to because it should be as concise as the disclosure permits, preferably 50 to 150 words, maintaining the upper limit is encouraged. Correction is required. See MPEP § 608.01(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.

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- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities:

- The Section heading "BACKGROUND OF THE INVENTION" and "(1) Field of the invention" is missing in page 1. Examiner recommends placing these headings preceding paragraph [0001].
- The Section heading "(2) Description of Related Art" is missing. Examiner recommends placing the heading between the last line of paragraph [0002] and the first line of paragraph [0003] in page 1.
- The Section heading "BRIEF SUMMARY OF THE INVENTION" is missing. Examiner recommends placing the heading between the last line of paragraph [0005] and the first line of paragraph [0006] in page 2.

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- The Section heading "BRIEF DESCRIPTION OF THE DRAWINGS" is missing. Examiner recommends placing the heading between the last line of paragraph [0036] and the first line of paragraph [0037] in page 8.
- The Section heading "DETAILED DESCRIPTION OF THE INVENTION" is missing. Examiner recommends placing the heading between the last line of paragraph [0041] and the first line of paragraph [0042] in page 8.

Appropriate correction is required.

Claim Objections

4. Claims 1 and 17 are objected to because of the following informalities:
 - Claim 1 line 10 on page 2 of the Preliminary Amendment: "storing storing" in page line 10 of the Preliminary Amendment, should be -- storing --
 - Claim 17 line 3: "is inappropriate.--" should be -- is inappropriate. --

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 8 and 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "the balancing means" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

Claims 13-17 recites the limitation "The device" in line 1, respectively. There is insufficient antecedent basis for this limitation in the claim. However, it appears to be "The method" and has been treated as such. Affirmation of this is required by the appropriate amendment.

Appropriate correction required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 3, 8, 9 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Eck et al. (US 2001/00616057).

Re claim 1: Eck et al. disclose a method of processing an image (Abstract and Paragraph [0001]) comprising the steps of: dividing into at least two zones ("sub-

areas T_1 to T_N ") using a sensor (CPT) ("X-ray detector") associated with different processing pathways ("respective read-out units"), with a view to eliminating the defects due to the differences between these pathways ("mitigate differences in amplification characteristics"), in which one zone is regarded as the reference zone and the associated processing pathway is regarded as the reference pathway, and another pathway, the so-called pathway to be corrected (Paragraphs [0001], [0071] and [0076]); using a correction table ("adaptation table") and matching each signal level on input to the table, with a corrected level on output from the table (Paragraph [0076]); modifying iteratively during each new use of the sensor by measuring signal levels arising from the processing pathways for a group of border points around the border between the two zones (Paragraph [0077] and [0080]); determining an abnormal divergence between the measurements on either side of the border, this divergence being the consequence of an inappropriate correction of a level on input to the table ("difference in amplification behavior of the amplifiers", Paragraphs [0074] and [0076]-[0077]); storing new values in the correction table for a series of input levels (b_i) of the correction table around the level (b_1) for which the correction is inappropriate (Paragraph [0080]); and repeating the measuring, determining and storing steps for other groups of border points (Paragraphs [0076] and [0080]).

Re claim 2: Eck et al. disclose the modifications performed as sufficiently small as to end up with a progressively stabilized table ("smoothing operation", Paragraphs [0101]-[1016]).

Re claims 3 and 13, as understood: Eck et al. disclose the divergence is defined by the discrepancy between the value of the signal supplied by the pathway to be corrected for a border point and the extrapolation of the values supplied by the reference pathway for neighboring points situated on the other side of the border (Paragraphs [0089]-[0090]).

Re claim 8, as understood: Eck et al. disclose a device (FIG. 1) for electronic image capture (Abstract and Paragraphs [0001] and [0070]) comprising: using a matrix image sensor (FIG. 1, "detector 11", "X-ray detector", Paragraphs [0070] and [0071]) divided into at least two zones ("sub-areas T_1 to T_N ") and supplying a digital value (Output of image sensor XTV16 as disclosed in Paragraph [0109] comprises a digital output.) for each image point, this digital value being computed in a first processing pathway for the points of the first zone and in a second processing pathway for the points of the second zone, the processing pathways ("respective read-out units") being at least partly distinct, the second processing pathway using balancing for eliminating the visible defects engendered by the small differences existing between the two processing pathways, wherein the balancing means comprise a digital conversion table (TC)

(FIG. 1, "memory 14", "adaptation table") to match each possible digital value of the second pathway with another digital value to minimized the influence of the differences between the pathways, and means (MC) (FIG. 1, "adaptation unit 17") for dynamically modifying the content of this table on the basis of an analysis of a divergence between on the one hand the digital values of the signals arising from one processing pathway and corresponding to border points situated on one side of the border between the zones and on the other hand the digital values of the signals arising from the other processing pathway and corresponding to border points situated on the other side of the border ("difference in amplification behavior of the amplifiers"), for any image observed while using the device, the modification being performed for a whole series of luminance values around a luminance value for which a divergence is noted (It should be noted that the processing performed by the device as claimed, correspond to similar steps as recited in claim 1 above. Therefore, reference is made to those presented in claim 1 above and Paragraphs [0084], [0085], [0089], and [0092]-[0095].). Claim 8 invokes 35 U.S.C. § 112 6th paragraph.

Re claim 9: Eck et al. disclose means for (FIG. 1, "adaptation unit 17") calculating a divergence on the basis of the digital values and arising form a processing pathway and corresponding to two points on one side of the border and a digital value arising form the other processing pathway and corresponding to a point

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situated immediately on the other side of the border (Paragraphs [0076]-[0080] and [0089]). Claim 9 invokes 35 U.S.C. § 112 6th paragraph.

Re claim 10: Eck et al. disclose means for (FIG. 9, "correction unit 13", Paragraph [0092]) writing to the correction table, for a series of input values i ("entries") of the table, a content corrected with respect to the previous content at the same address, the correction being equal to a fraction of the divergence (The entries of the adaptation table are corrected when the non-linearity between them exceeds the twice the non-linearity of the amplifiers, the correction being made as a fraction of the entries. Paragraphs [0101]-[0107]). Claim 10 invokes 35 U.S.C. § 112 6th paragraph.

Allowable Subject Matter

9. Claims 4-7, 11-12 and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the closest prior art made of record does not disclose or suggest performing the addition process corresponding to a fraction of the determined divergence being added to the previous content of the correction table, the means for correcting the content of the table by a value for values of I greater than b'_1 and by a value decreasing from kE for

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the values of I less than b'_i . Therefore, these limitations taken in combination with their respective intervening claims would be allowable.

Claims 14-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cook et al. disclose a Method and Apparatus for Compensating for Sensitivity Variations in the Output of a Solid State Image Sensor, Parks disclose a Multiple Output CCD Image Block Balancing, Greene et al. disclose Tiled, Flat-Panel Displays with Luminance-Correcting Capability, Aloni et al. disclose an Electro-Optical Display Apparatus, Frame disclose an Image Sensor Sensitivity Variation Compensator, Mori et al. disclose an Image Data Circuit for Correcting Sensitivity Differences Between Image Sensors, and Shiomi disclose an Image Pickup Apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jose M. Torres whose telephone number is 571-270-1356. The examiner can normally be reached on Monday thru Friday: 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMT
05/17/2007



JINGGE WU
SUPERVISORY PATENT EXAMINER